

# **SOUTH AMERICA & AUSTRASLIA GRAIN WEATHER**

## **12/18/17 OVERVIEW**

### **SUMMARY**

**As we talked about in the audit report Sunday night there was significant rain on Saturday over Eastern Argentina even though the temperatures and many areas got well above 102°F/ 39C. The Monday morning models are clearly not as wet as what the model data was showing late last week for Argentina. It's not completely dry but clearly it's not as wet.**

**That being said the 12z Monday afternoon GFS AND GFS ensembles are both much wetter for the 1-5 day over all of Argentina when compared to what the data was showing on the GFS model from early Monday morning. The regular operational 12z GFS has 70% coverage over Buenos Aires Cordoba Santa Fe and Entre r Rios as well as Chaco and Formosa for 0.75-3.0"/ 20-75mm with 70% coverage. The GFS ensemble does support this. So this is a big change.**

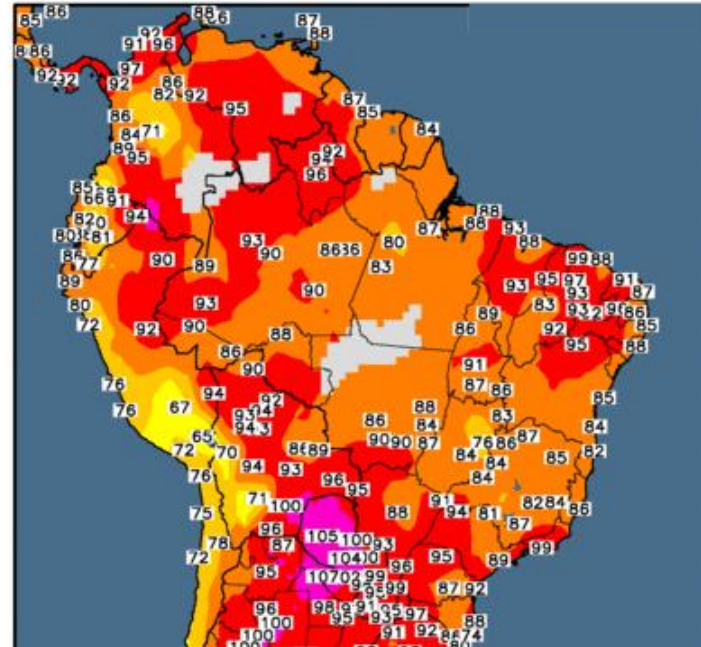
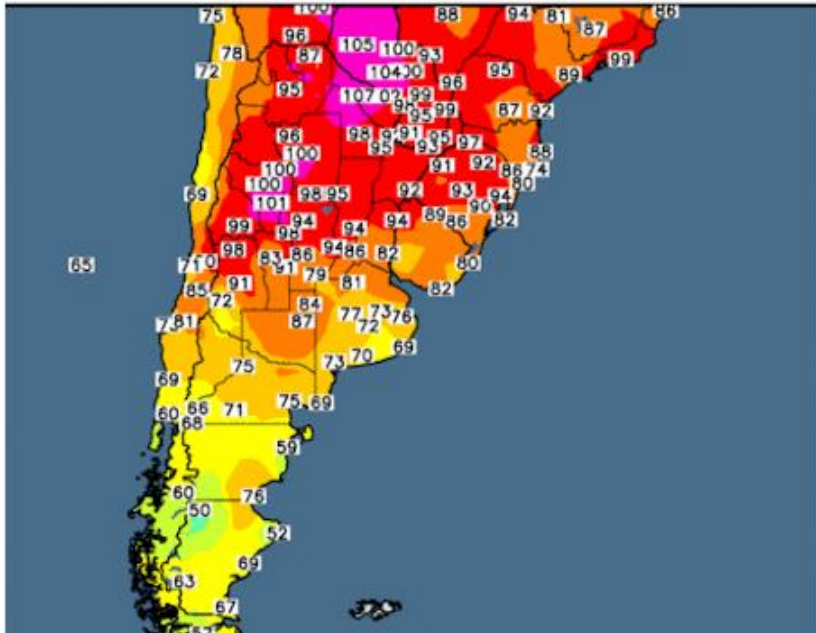
**However the 12 the Monday afternoon European model is not mean nearly as wet. Again it shows good rains over Chaco and for most on the European up to three of 4 inches but Central Argentina sees anywhere from 0.75 to 1.5 inches. And the coverage is only about 60%. The rest of the forecast for the 6 to 10 day and 11 to 15 day is unchanged based upon the midday model data**

## S.AMERICAN MAX TEMPS DEC 17

Temperatures turned extremely hot on Sunday across most of central ...northern and ...eastern Argentina but remained actually below normal over much of Brazil. The heat was undoubtedly being enhanced by the dry conditions over most of Argentina. Temperatures did turn much cooler over on Sunday over Buenos Aires southern Santa Fe and La Pampa but central and northern areas saw temperatures between 95-100°F/ 35-38c and 100+ / 38c were common over much of Paraguay. In Brazil the Southeast areas did see temperatures into the middle 90s/ 35c but the rest of Brazil had temperatures that are actually below normal for this time of year

Observed Maximum Temperature (°F) 17 Dec 2017

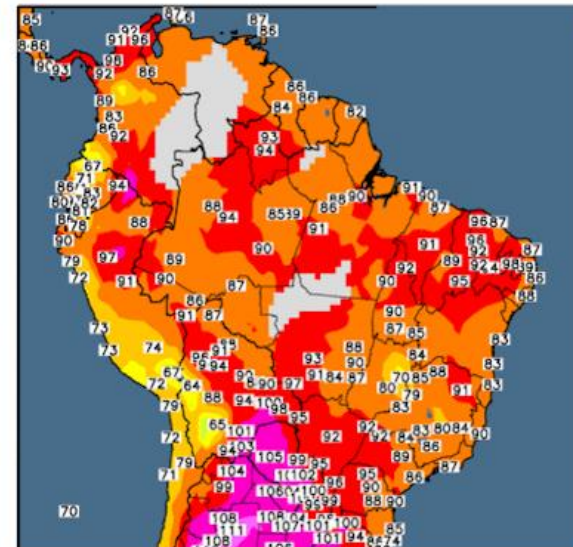
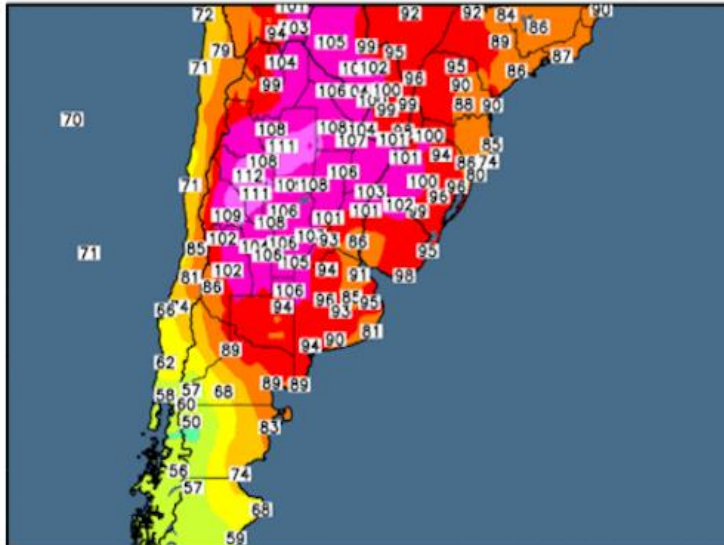
Observed Maximum Temperature (°F) 17 Dec 2017



## S.AMERICA MAX TEMPS DEC 16

Max temperatures on Saturday were extreme over all of Argentina. Many areas reporting Max temperatures of 105-108°F / 43-43c and this extreme heat extend up into all of Paraguay. Southeastern and southwestern Brazil saw temperatures in the upper 90s/ 32-37c. However most of western ..central and ...east central Brazil saw below normal temperatures because of overcast skies and rain

Observed Maximum Temperature (°F) 16 Dec 2017

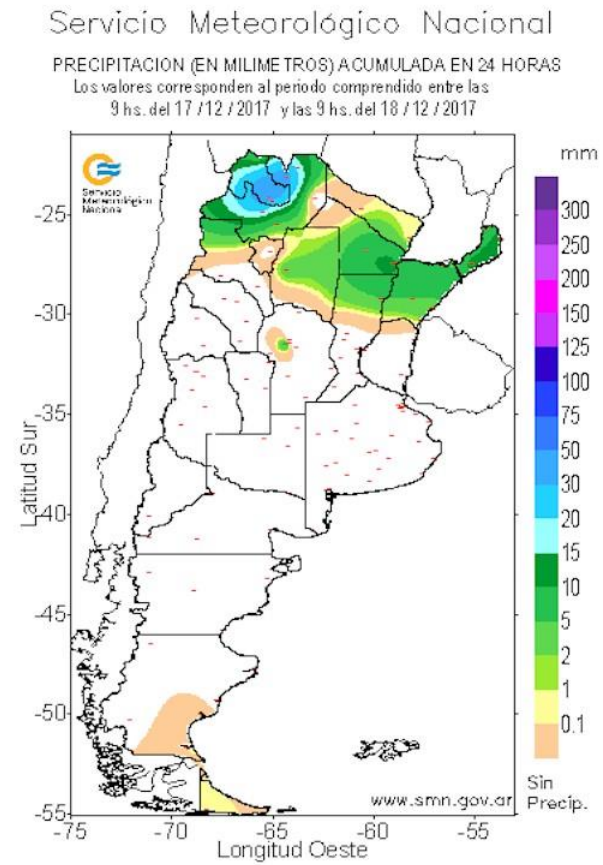
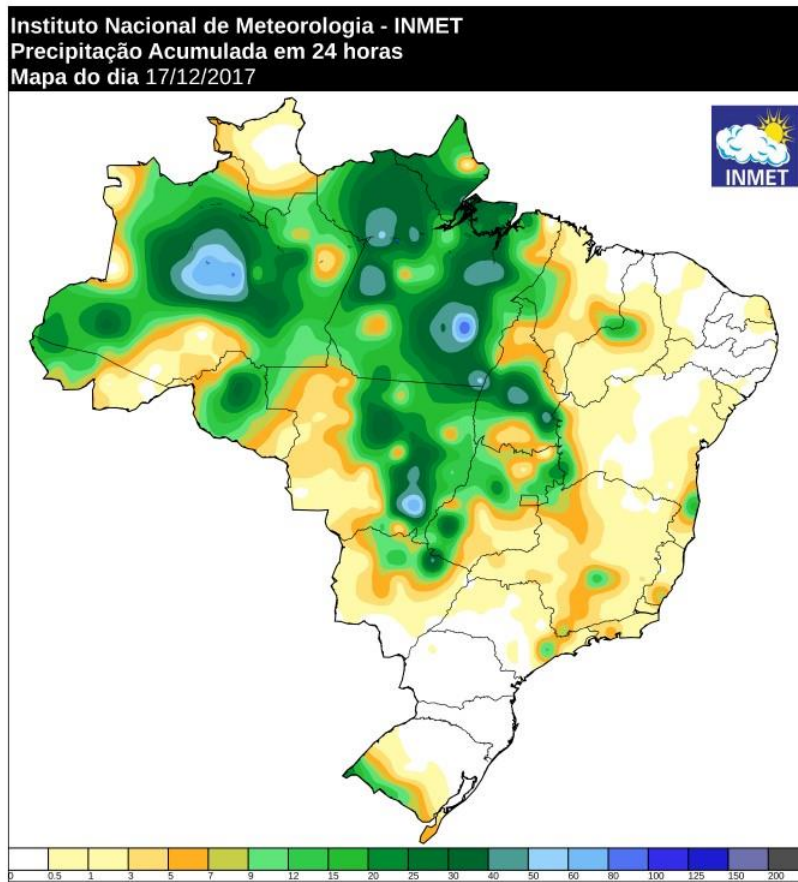


## S.AMERICA RAINFALL DEC 17 Ending 0000 UTC

Rainfall December 17 in Brazil was restricted to central and eastern Mato Grosso and Tocantins and far northern MGDS western Goias. Amounts were in the 9-50mm/ 0.40-2.0" range with 75% coverage of those states. All other areas in Brazil were dry. In Argentina most areas were dry but rains of 2-10mm/ 0.10-0.40" fell over 50-60% of Corrientes eastern Chaco and northern Santa Fe

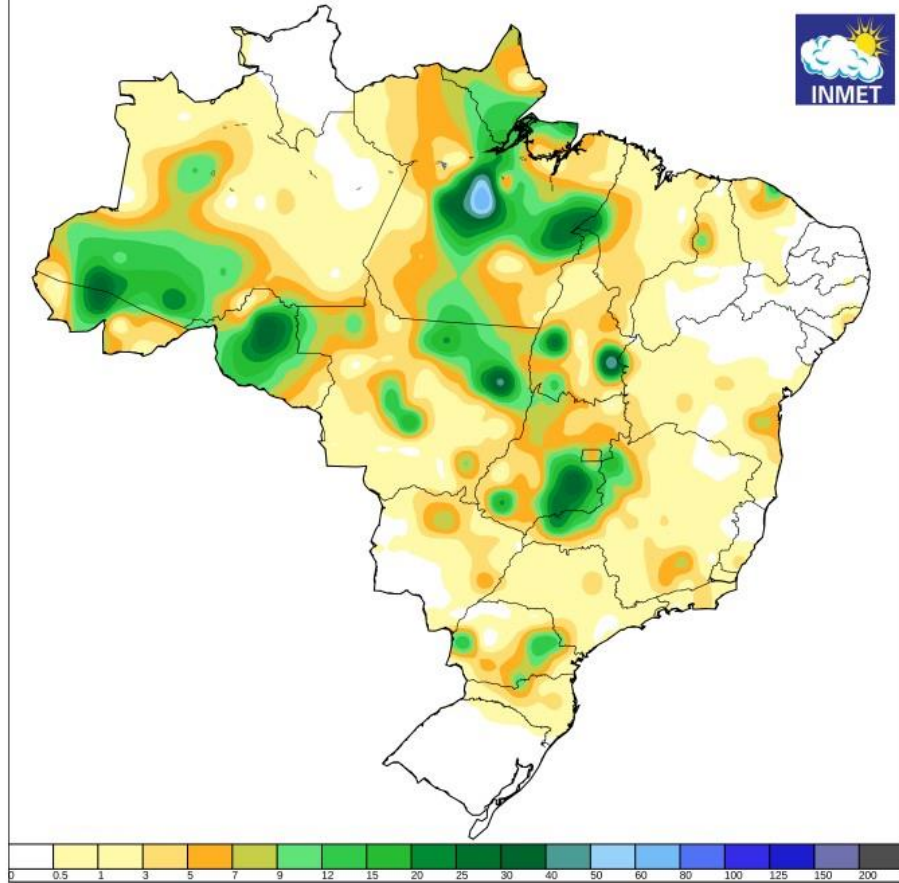
**DEC16 rains** saw widely scattered light to moderate rains over Brazil- 9-40mm/ 0.10-1.5" with 50% coverage over eastern Mato Groos... Tocantins.. and Goias. In Argentina there was significant rains over Buenos Aires... Entre Rios ...Santa Fe... Corrientes of 10-60mm/ 0.40-

2.5" with 70% coverage.

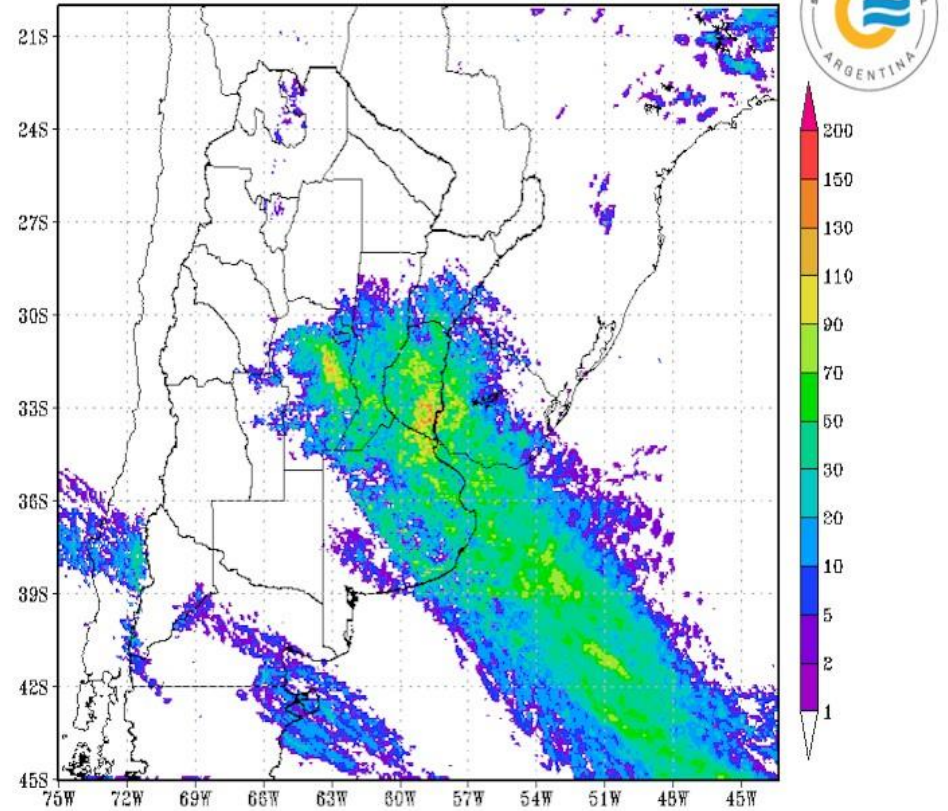


## S.AMERICA RAINFALL DEC 16

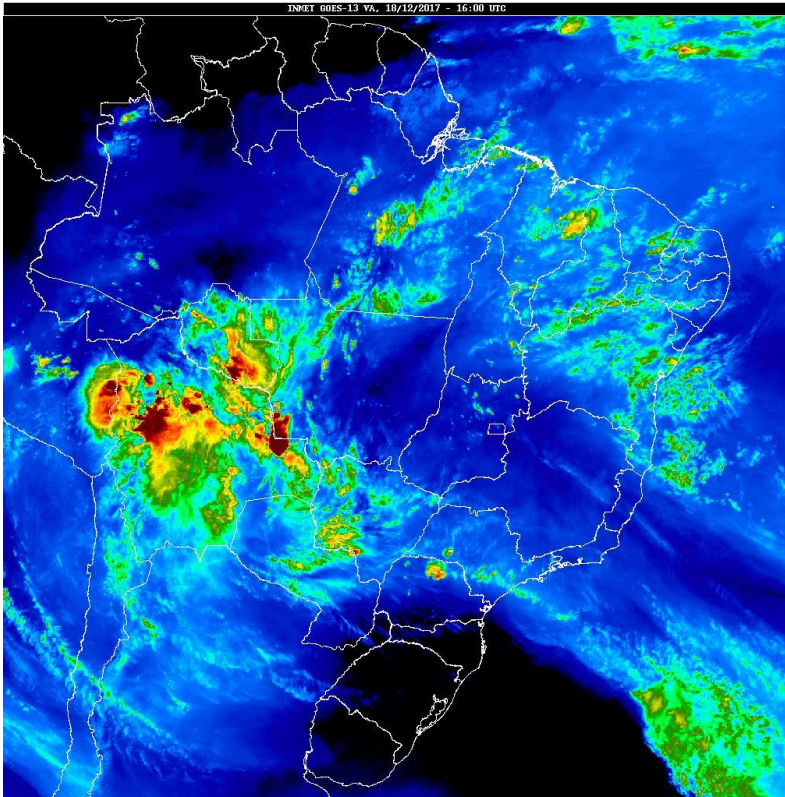
Instituto Nacional de Meteorologia - INMET  
Precipitação Acumulada em 24 horas  
Mapa do dia 16/12/2017



PRECIPITACION ACUMULADA (mm/24h)  
16/12/2017 12:00 UTC - 17/12/2017 12:00 UTC



Hidroestimador version CONICET-SMN a partir de imagenes del satelite GOES-13

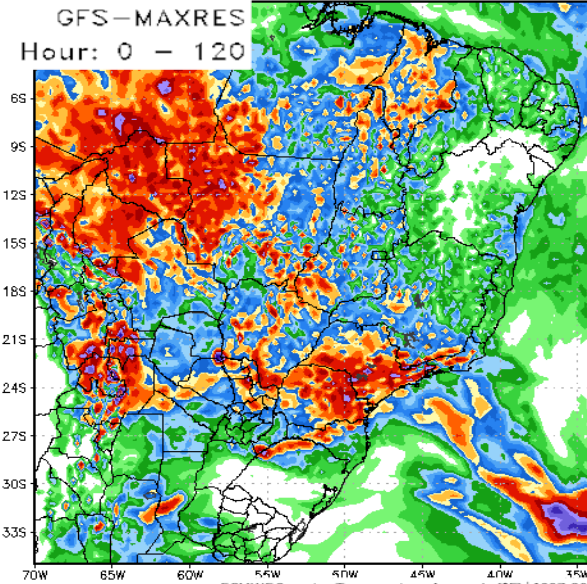


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The midday satellite picture heavy storms over far western Mato Grosso into Bolivia and Moderate rains over MGDS and showers over Bahia

## DISCUSSION

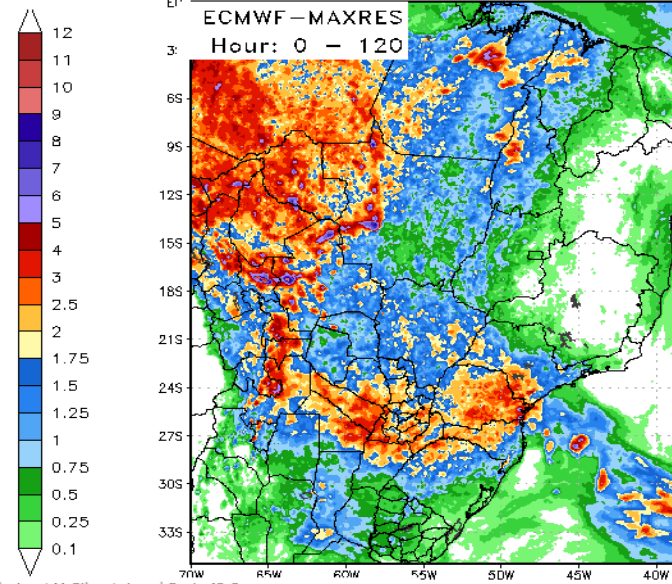
The data overnight into Monday morning... when compared to last Thursday and Friday is significantly drier in Argentina. It is not completely dry as you can see both models do show a general 0.75-1.5"/ 20-38mm with anywhere from 50 to 60% coverage over central ...eastern and northern Argentina. But they Models are clearly drier from what the data was showing late last week. Both models agree that the best rains are going to be over far northern Argentina into eastern Paraguay and over Parana... Sao Paulo...Santa Catarina and MGDS with amounts of 1-3"/ 25-75mm - though the GFS has several areas of 4"/100mm amounts. Most of Minas Gerais and Bahia are dry.

120 Hour Total Precipitation (in)  
Valid: 00z Mon 18 Dec 2017 - 00z Sat 23 Dec 2017



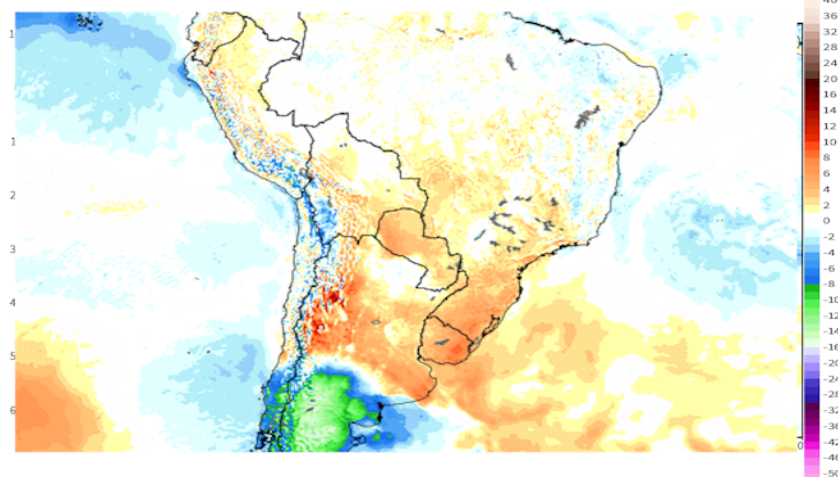
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120 Hour Total Precipitation (in)  
Valid: 00z Mon 18 Dec 2017 - 00z Sat 23 Dec 2017



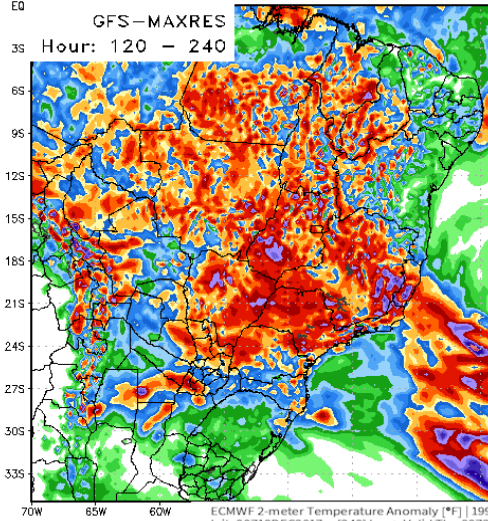
Stc  
ECMWF 2-meter Temperature Anomaly [°F] | 1997-2016 Hindcast M-Climatology | Cycle 43r3  
Init: 00Z18DEC2017 -- [126] hr --> Valid Sat 06Z23DEC2017

MIN|MAX -22.5° | 17.5°F  
istaWxModels.com



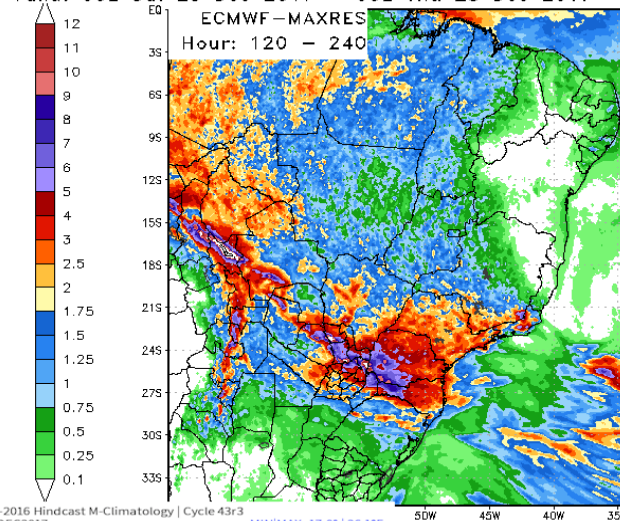
6-10 DAY OPERATIONAL / REGULAR” MODELS

120 Hour Total Precipitation (in)  
Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017

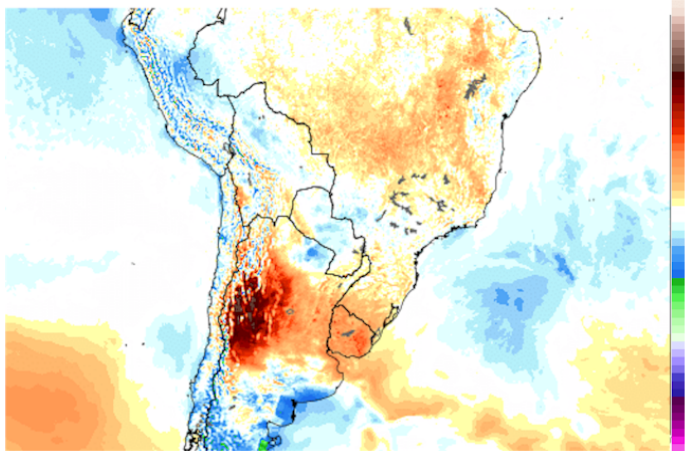


Max: 11.3 in  
Min: 0.0 in

120 Hour Total Precipitation (in)  
Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017



Storr



This service is based on data and products of the European Centre for Medium-range Weather Forecasts (ECMWF)

weather.us | @ryanmaue

MIN|MAX -17.0°|26.1°F  
WxModels.com

Gerais... Goias... Tocatins.... MGDS ...and Mato Grosso

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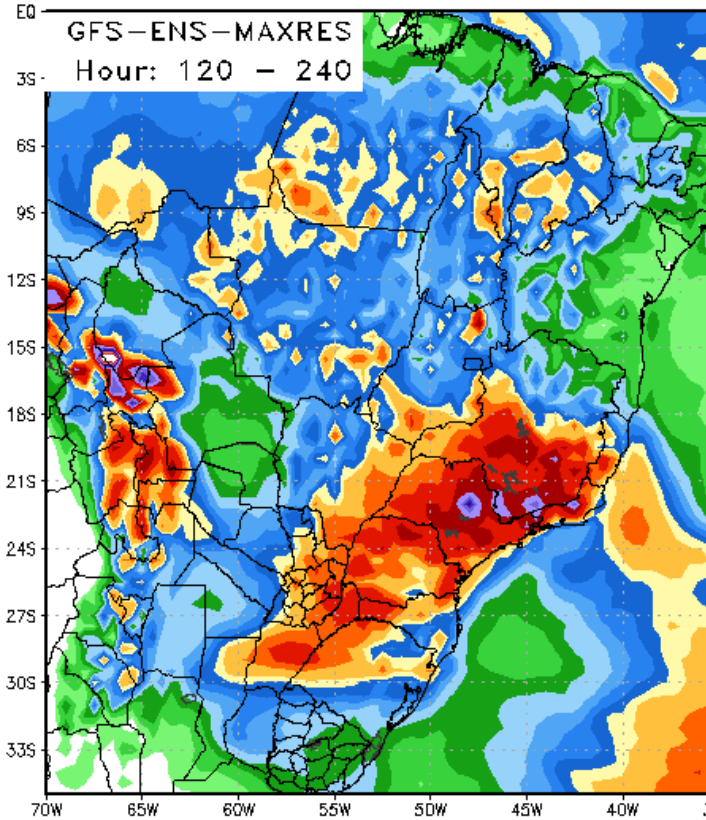
**N ARGENTINA ...**The trend here is clear from last Thursday and Friday. Both models show a large areas of Argentina although the GFS has strong thunderstorms over far northern Santa Fe and into portions of Chaco. The European does not have the storms. Even the GFS is correct most of central and eastern Argentina is dry and that was not the data show late last week.

**IN BRAZIL -** The GFS shows significant rains over the central and western portions of Brazil while the Euro shows only scattered showers with amounts in those areas. The Monday morning European model has concentrated heavu rains over eastern Paraguay as well as Santa Catarina Parana.... with rainfall amounts of 4-9" / lesser rainfall amounts of 1-3" into Sao Paulo . The European model shows scattered showers across Mato Grosso Goias and Tocatins and Dry over Minas Gerais and Bahia . GFS model does not show rainfall amounts of 4-9"/ 100-175m over Santa Catarina Parana. Instead the 0z GFS shows a lot more rain over Sao Paulo... Minas



**6-1DAY ENSEMBLES** The GFS and European ensembles are in somewhat better agreement. Both models agree that is to be a concentration of rain over southeastern Brazil but there is significant disagreement as to how much and where the concentrated area rainfall will be. European focus show 2-4"/ 50-100mm rains over eastern Paraguay Santa Catarina Parana as well as the southern portions of MGDS and Minas Gerais and into far northeastern Argentina mostly over Corrientes. The GFS has a large area of 2-6"/ 50-150mm extend from southern Minas Gerais into RGDS and Corrientes in far northeast Argentina. Both models to agree on additional normal rains over much of western and Central Brazil

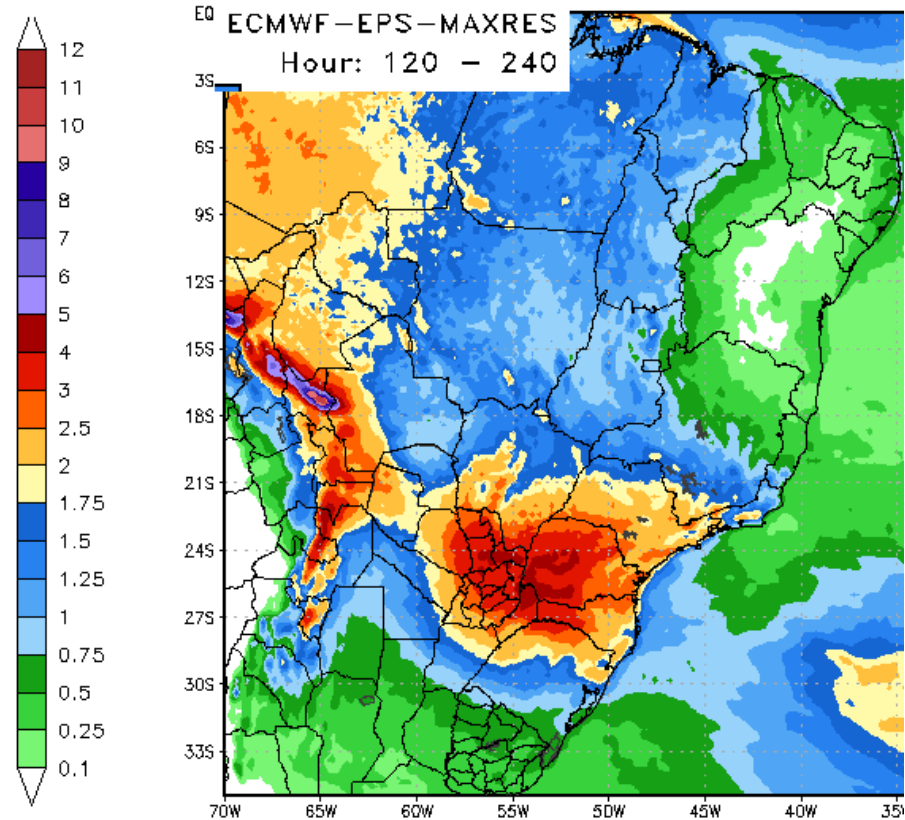
120 Hour Total Precipitation (in)  
Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017



Max: 15.0 in  
Min: 0.0 in

StormVistaWxModels.com

120 Hour Total Precipitation (in)  
Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017



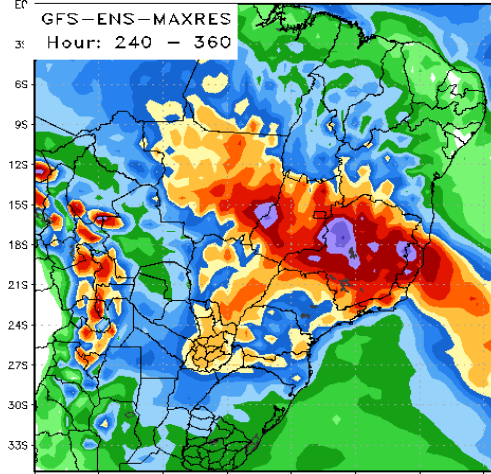
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StormVistaWxModels.com

# 11-15 DAY ENSEMBLES

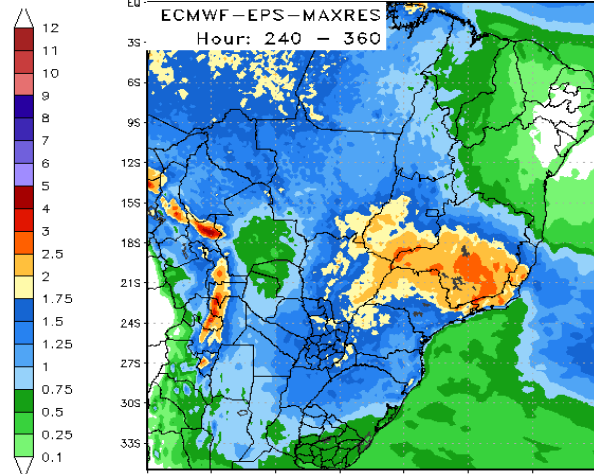
The 0z Monday GFS ensemble has a huge area of 2-6"/50-150mm covering 80% of Minas Gerais 70% of Goias and 2-4"/ 50-100mm rains over Mato Grosso MGDS and Sao Paulo. The European model has the same kind of rain shield in terms of the geographical area but the rainfall amounts are under 2.5 "/ 60mm . Both models show northern and central Argentina seeing near normal rainfall with amounts generally staying between 0.75-1.5"/ 20-38mm

120 Hour Total Precipitation (in)  
Valid: 00z Thu 28 Dec 2017 - 00z Tue 02 Jan 2018

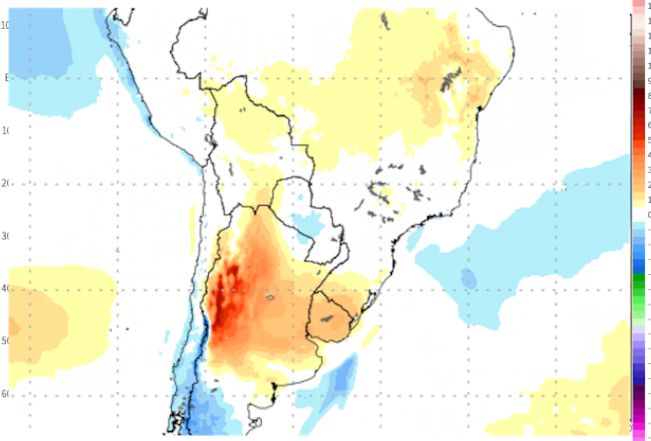


Max: 7.1 in  
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120 Hour Total Precipitation (in)  
Valid: 00z Thu 28 Dec 2017 - 00z Tue 02 Jan 2018



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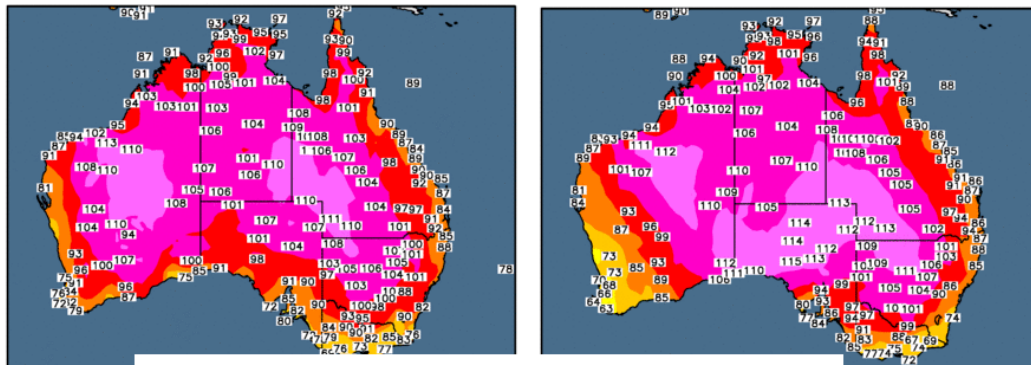


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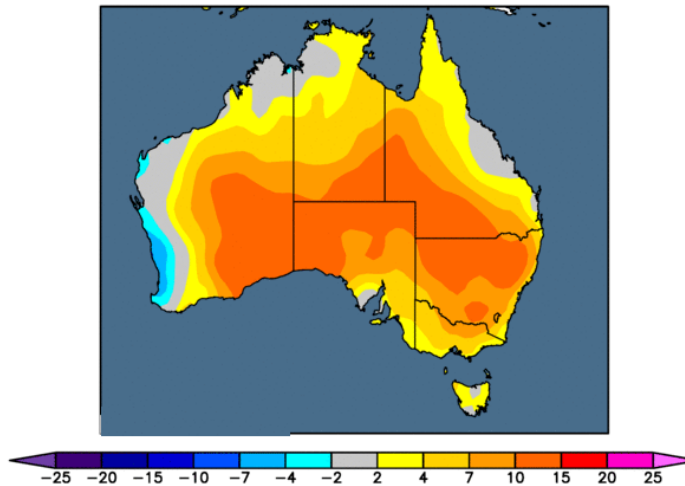
# AUSTRALIAN GRAIN WX

**TEMPERATURE PAST 2 DAYS** -- Over the weekend we saw a major expansion of the Australian heat which that continent is famous for doing their Summer seasons. Temperatures pushed into the 100s / 38c+ over much of central and western New South Wales and (NWS) interior portions of southeastern Queensland. Most of the coastal areas did not see the extreme heat and that also includes Victoria and the southeast corner of the Southern Australia Territory. But the heat is expanding and pushing towards s the southeastern coastal areas

Observed Maximum Temperature (°F) 16 Dec 2017      Observed Maximum Temperature (°F) 17 Dec 2017

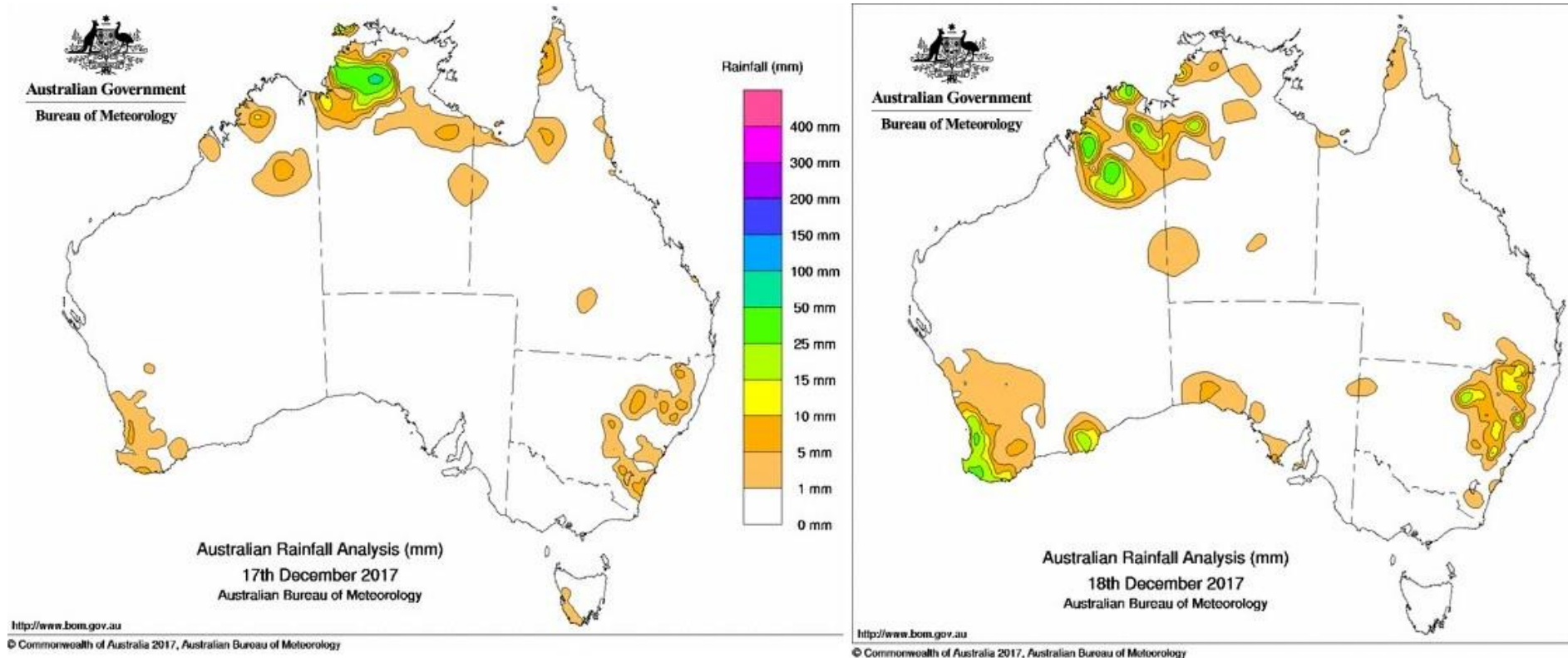


Maximum Temperature Departure from Normal (°F)  
3 days ending 17 Dec 2017



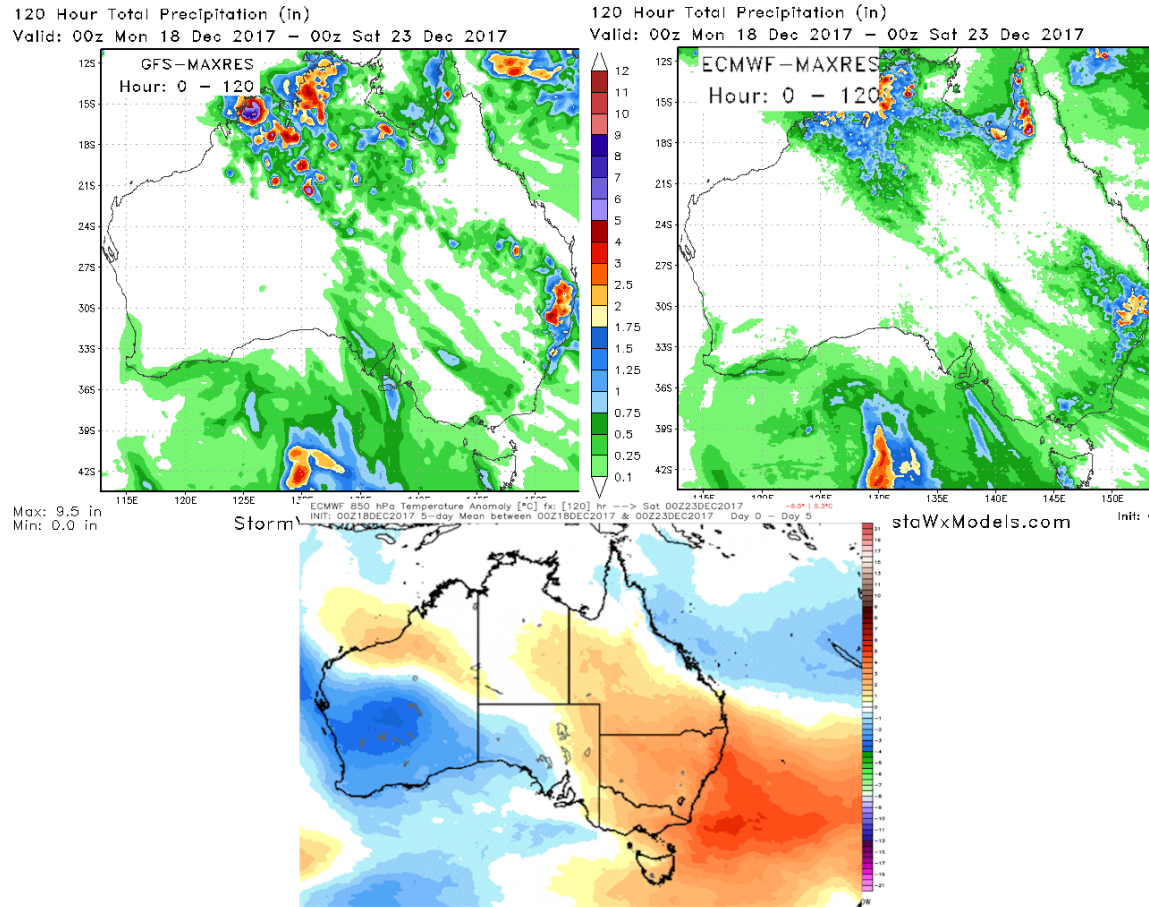
## RAINFALL last 2 days - DEC 17 DEC 16

Rainfall the past two days was quite insignificant with the only real meaningful rain occurring over southwest Australia on December 16. The coastal areas around Albany saw rainfall amounts 0.25-1.0"/ 6-25mmh.



## AUSTRALIA 1-5 DAY

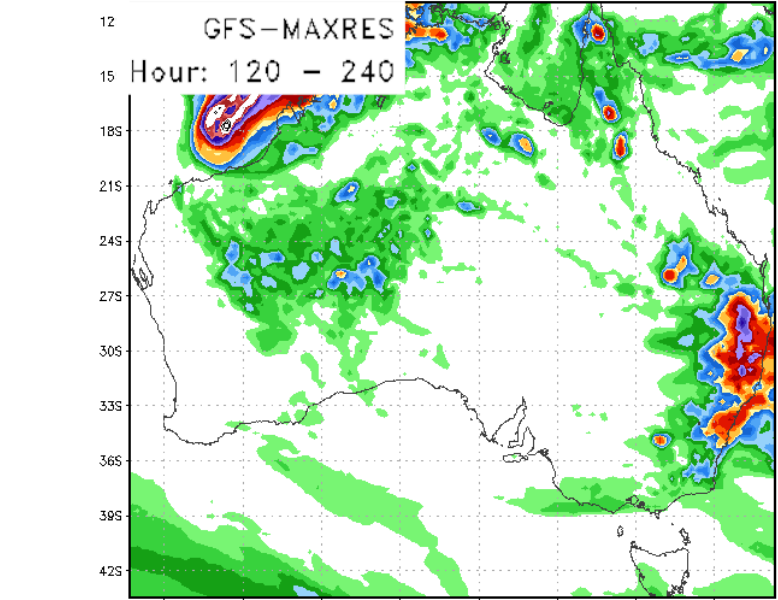
The dry recent pattern continues almost all areas of southwestern and south central and southeast Australia. Both models only show light to moderate rain showers over southeast portions of Queensland and far northeast 25% of NSW. The significant rains remain over the coastal range is but inland rainfall amounts of 0.25-1.0"/ 6-25mm with 30 to 40% coverage appear on both models. Temperatures remain much below normal over the southwest third of Australia and remain above normal across all of Victoria NSW and southern Queensland



## AUSTRALIA 6-10DAY

There remains a significant difference in the rainfall amounts in this timeframe between the GFS and the European models. The GFS shows heavy rains mostly over the northeast coastal range of NSW some the rain does extend fairly far inland with rainfall amounts up to 1.0"/25mm. The European has these rains restricted to the coastal mountain ranges and very little rain inland.

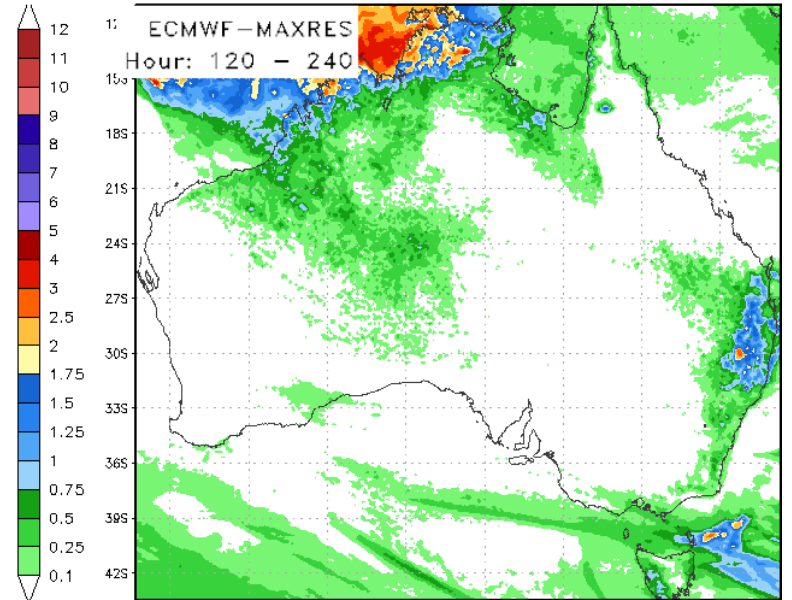
120 Hour Total Precipitation (in)  
Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017



Max: 27.1 in  
Min: 0.0 in

StormVistaWxModels.com

120 Hour Total Precipitation (in) E  
Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017 Ho



Max: 8.9 in  
Min: -0.0 in

StormVistaWxModels.com

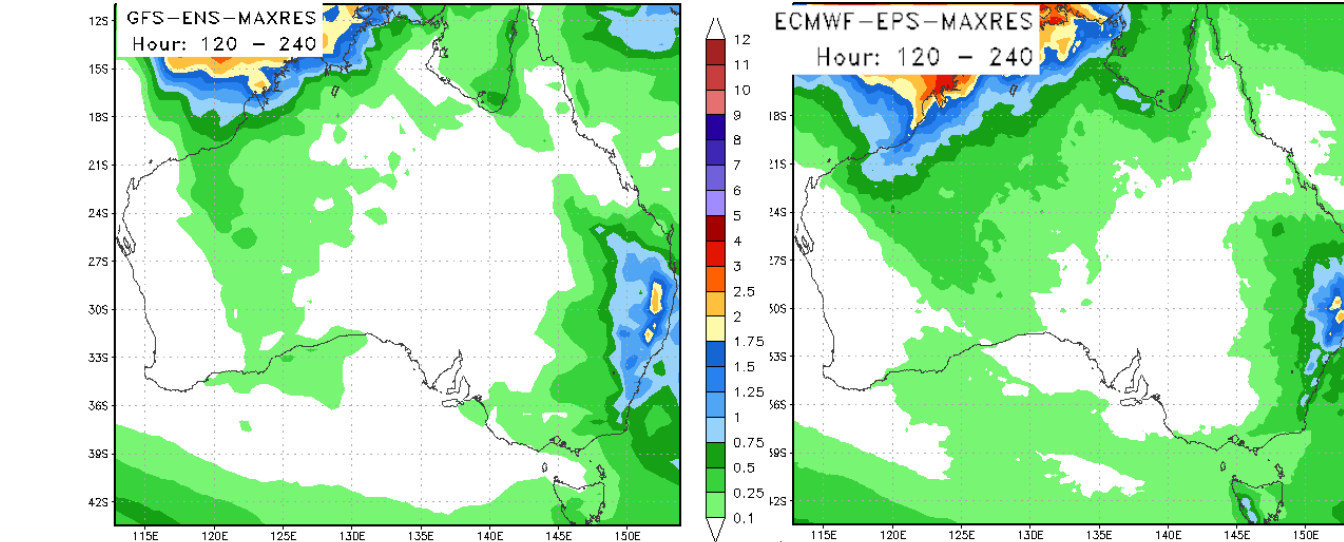
## AUSTRALIA 6-10DAY ENSEMBLE

Most areas mean dry in the 6-10DAY but both models Do show significant rains over the northeast 25% of NSW. The GFS has more this rain extending inland with rainfall amounts up to 0.75"/20mm over the northeast third of NSW while the European model has the rain restricted much more to the coastal areas. Temperatures however will remain quite hot over the Southern Australia Territory and into the interior portions of New South Wales and southern Queensland. Temperatures appear to run below normal over the southwest 25% of Australia and over Victoria.

120 Hour Total Precipitation (in)  
Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017

GFS 120 Hour Total Precipitation (in)  
Ho Valid: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017

ECMWF  
Init: 00z Sat 23 Dec 2017 - 00z Thu 28 Dec 2017



Max: 5.0 in  
Min: 0.0 in

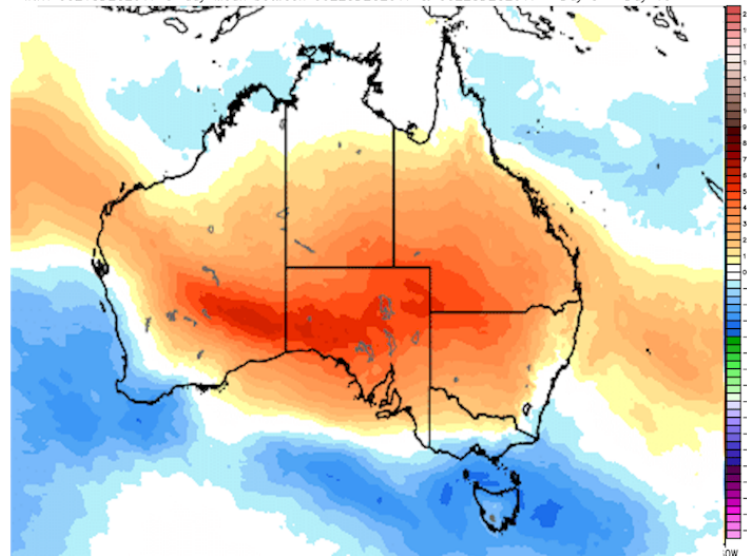
Stor

ECMWF 850 hPa Temperature Anomaly [°C] fx: [240] hr --> Thu 00Z28DEC2017  
INIT: 00Z18DEC2017 5-day Mean between 00Z23DEC2017 & 00Z28DEC2017 Day 5 - Day 10

-5.8° | 5.9°C

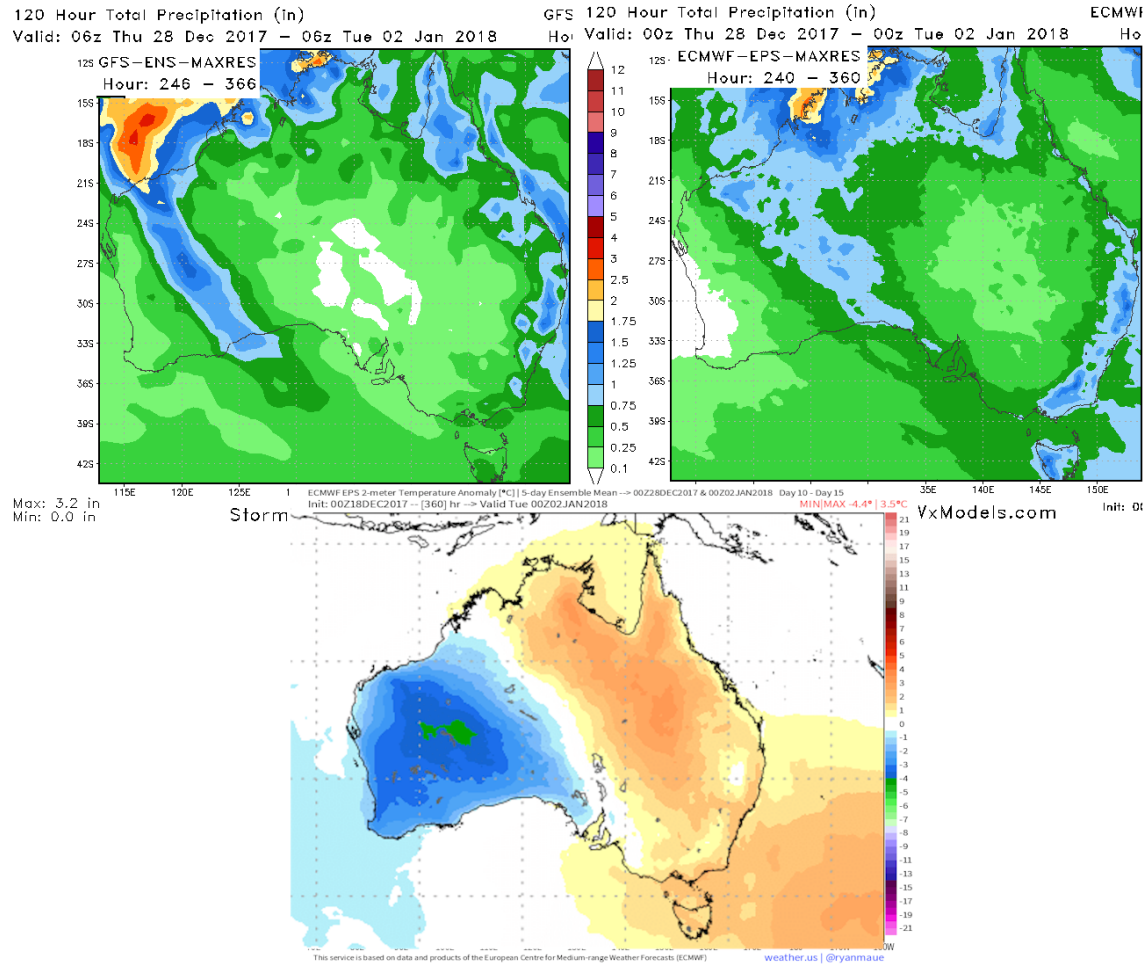
iWxModels.com

Init: 0



**AUSTRALIA 11 - 15DAY**

Both models bring moderate rain into the interior portions of western Australia but for the most part these rains appear to bypass the southwest 25% of that country. Most of the eastern areas remain fairly dry except for the immediate coastal range over NSW and far western Victoria and along the immediate coast of southeastern Queensland. Temperatures remain above normal over the eastern third and much below normal over the entire southwest third of Australia



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